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[54]	CALCULATOR KEYBOARD WITH USER
	DEFINABLE FUNCTION KEYS AND WITH
	PROGRAMMABLY ALTERABLE
	INTERACTIVE LABELS FOR CERTAIN
	FUNCTION KEYS

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[56] References Cited

U.S. PATENT DOCUMENTS

3,425,627	1/1984	Eibner 364/900
4,078,257	3/1978	Bagley 364/900
4,145,742	3/1979	Olander, Jr. et al 364/709
4,208,720	6/1980	Harrison 364/709
4,333,097	6/1982	Buric et al 340/365 R X
4,385,366	5/1983	Housey, Jr 364/900
		- ·

4,481,598	11/1984	Ishiwata 364/710
4,647,911	3/1987	Maegawa et al 340/365 R
4,667,299	5/1987	Dunn 364/70 P
4,680,729	7/1987	Steinhart 364/900

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[57] ABSTRACT

Calculator having a keyboard in which one or more keys have labels created by a display and subject to changing interactively as the user desires. Typically, advanced scientific-programmable calculators may have too many functions to be adequately included on the keys of the keyboard associated therewith. In such calculators, certain functions require a plurality of keys to be actuated in order to be performed. Thus, such keyboards tend to be cluttered an confusing to the user. Thus, a keyboard is proposed having a small number of keys labeled with different functional labels as the user proceeds through a menu or tree structure containing all the desired functions. Keys in a certain group of keys on the keyboard are thereby subject to redefinition or relabeling so as to provide a variety of functions.

8 Claims, 5 Drawing Sheets

